

**REMARKS**

Claims 1-10 are pending in the present application and are rejected.

**Applicant's Response to Claim Rejections under 35 U.S.C. §103**

**Claims 1, 3, 4 and 6-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over Kusano (U.S. Patent No. 6,508,647) in view of Gleave et al. (U.S. Patent No. 4,105,715).**

It is the position of the Office Action that Kusano discloses the embodiment as claimed, with the exception of teaching (i) that the paste has a viscosity of 0.1 Pa·s to 5 Pa·s, and (ii) that the paste is thixotropic. The Office Action states that (i) would have been obvious, and relies on Gleave to teach (ii).

Gleave is directed at cyanoacrylate adhesive paste compositions. These compositions have thixotropic properties. As explained in the Examples, the composition must include (i) ethyl or methyl cyanoacrylate, and (ii) a filler which is one of polyvinylidene fluoride powder, polycarbonate, and polyethylene. The result is a paste or gel with thixotropic properties.

In response to the previously filed remarks, the pending Office Action essentially provides two comments. First, the Office Action states that the rejection "is not using the exact paste but rather the teaching of using a paste having thixotropic properties and the advantages of using a thixotropic paste." Secondly, the Office Action states that even if the exact paste of Gleave were used, "the affidavit is still not persuasive since the statements appear to be mere statements and are not supported by any experimental results."

In response, Applicant first respectfully submits that it would not have been obvious to modify the paste of Kusano by adding *a property* of the paste of Gleave. One simply cannot modify a paste by adding a particular *property*. Rather, one can only modify a paste by adding a compound or compounds which may confer a particular property on the paste. If a compound or compounds are added to a paste, the modified paste may or may not exhibit the desired properties, and one or more undesired properties may result.

In Gleave, the thixotropic properties come not from the cyanoacrylate or the filler, but rather from a combination of the two. At column 5, lines 6-10, Gleave states "it would seem that the interaction between the cyanoacrylate monomer and the filler substance is responsible for producing the thixotropic consistency which is the prime feature of this invention." Therefore, Applicant respectfully submits that if the paste of Kusano were modified by including (i) only the cyanoacrylate monomer, or (ii) only the filler, the modified paste would not have the thixotropic properties. Rather, the only way to possibly achieve the thixotropic properties is to modify the paste of Kusano by including both the cyanoacrylate monomer and the filler.

As noted in the Declaration filed on May 11, 2010, if a cyanoacrylate monomer is used as a dental paste, this is highly disadvantageous, because cyanoacrylate polymerizes when it comes in contact with water. Of course, dental applications unavoidably include water. Thus, it would not have been obvious to modify Kusano by using the paste of Gleave.

As noted above, the Office Action dismisses the Declaration as "mere statements and not supported by any experimental results." In response, Applicant respectfully submits that this comment is an improper treatment of the Declaration. Unlike arguments of counsel, statements

in a Declaration are factual evidence supported by a sworn statement. The significance of such evidence has been recognized by the Federal Circuit:

After a prima facie case of obviousness has been made and rebuttal evidence submitted, all the evidence must be considered anew.” *In re Eli Lilly & Co.*, 902 F.2d 943, 945 (Fed. Cir. 1990) (citing *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984)); *Piasecki*, 745 F.2d at 1472 (“Prima facie obviousness is a legal conclusion, not a fact. Facts established by rebuttal evidence must be evaluated along with the facts on which the earlier conclusion was reached, not against the conclusion itself.” (internal cites omitted)); *see also* MPEP § 716.01(d).

Additionally, the BPAI has repeatedly explained that Declarations are to be considered on the merits and carry greater weight than attorney arguments. For example, see *ex parte Malone*, Appeal 2009-003894, August 27, 2009; *ex parte Rapp*, Appeal No. 2009-002865, August 17, 2009; *ex parte Ramsen*, Appeal No. 2009-002984, December 30, 2009; *ex parte Donnelly*, Appeal No. 2009-014598, January 5, 2010. Additionally, as explained in MPEP 716.01 (B), when evidence such as a Declaration is filed, “[g]eneral statements such as “the declaration lacks technical validity” or “the evidence is not commensurate with the scope of the claims” without an explanation supporting such findings are insufficient.”

The statement in the Office Action that the Declaration filed on May 11, 2010 is “mere statements and not supported by any experimental results” is a general statement, and there has been no explanation given why the evidence presented is insufficient. Simply because experimental evidence has not been presented to show that cyanoacrylate polymerizes when it comes in contact with water does not mean that this fact should be dismissed. Thus, Applicant respectfully traverses the rejection.

Additionally, Applicant refers to the Wikipedia entry for "cyanoacrylate." As noted, "cyanoacrylate is an acrylic resin which rapidly polymerizes in the presence of water (specifically hydroxide ions), forming long, strong chains, joining the bonded surfaces together." The fact that cyanoacrylate polymerizes when it contacts water, a water substrate, or air, is a basic principle which is a bedrock of instant adhesives. Thus, since cyanoacrylate, which is required to obtain the thixotropic properties of Gleave, polymerizes too rapidly to be applied to dental applications where water is unavoidably present, it would not have been obvious to combine Kusano and Gleave. Favorable reconsideration is respectfully requested.

For at least the foregoing reasons, the claimed invention distinguishes over the cited art and defines patentable subject matter. Favorable reconsideration is earnestly solicited.

If the Examiner deems that any further action by applicants would be desirable to place the application in condition for allowance, the Examiner is encouraged to telephone applicants' undersigned attorney.

Application No. 10/527,338  
Art Unit: 3732

Response  
Attorney Docket No. 082407

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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Enclosures: Wikipedia entry for "cyanoacrylate"